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THE FARM INDEX

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THE AGRICULTURAL OUTLOOK

Farm Income Looking Up

Record levels of employment and income—in prospect for the U.S. economy as a whole this year—are expected to bolster domestic markets for farm products.

The Nation's farmers are likely to realize a record gross income in 1968, approaching \$51 billion. This would be about \$2 billion higher than estimated 1967 income.

Though farm production expenses will continue to rise this year—to about \$35.5 billion—realized net farm income probably will pass \$15 billion, some 5 percent above the 1967 level.

Cash receipts from farm marketings are expected to grow about \$1½ billion to a record level of close to \$44 billion. The volume of farm marketings will be larger than last year's and prices received by farmers probably will average higher.

Direct Government payments to farmers may rise about 10 percent from last year's total of \$3.1 billion.

The anticipated \$1-billion increase in farm production expenses this year reflects the persistent rise in prices paid by farmers for purchased goods and services. In addition, farmers are expected to buy larger amounts of such major inputs as feed, livestock, and fertilizer, as well as miscellaneous items.

Per farm, realized net income will probably be close to the peak of \$5,049 reached in 1966. The per capita personal income of farm people is likely to be record high in 1968, with gains expected from both farm and nonfarm sources.

First-quarter prices received by farmers this year were up from the first and last quarters of 1967 by 2 and 2½ percent, respectively. Since last November 15, the index of prices received by farmers has moved upward each month and by mid-March of this year was about 3½ percent above year-earlier levels.

This recent price strength reflects continued gains in consumer buying power and slightly smaller supplies of livestock and products than a year earlier.

Average crop prices will probably change little from a year ago. Most of the expected gain in total cash receipts from farm marketings is likely to be generated from sales of livestock and products.

Cash receipts from livestock and products for the first quarter of this year totaled \$6.1 billion, up about 4 percent from early 1967.

Cattle prices at the farm, during January-March 1968, averaged higher in spite of an increase in the number of cattle marketed. Hog prices and slaughter were running about the same as last year. Some gain was indicated for milk sold wholesale, as higher prices more than offset a slight drop in volume sold to plants and dealers.

The export situation for farm products appears to be favorable for the first half of this year; prospects for the latter half are as yet uncertain.

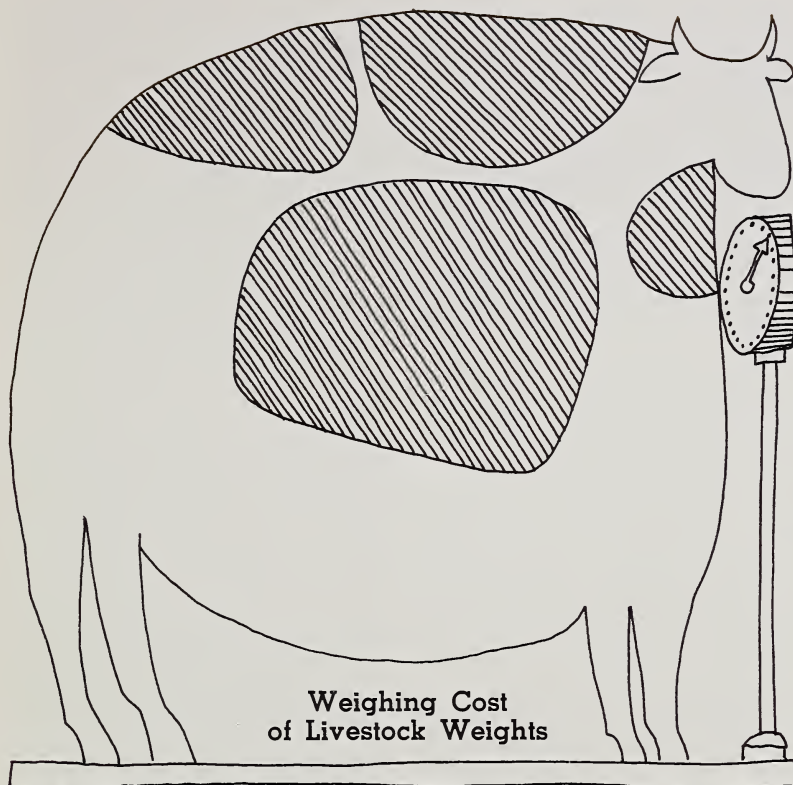
More Feed Grain Acreage Diverted

U.S. farmers have signed up to divert a little more than 34 million acres from corn and sorghums to soil-conserving uses under this year's Feed Grain Program. This is about 60 percent above the acreage signed for diversion last year and a little larger than the corn and sorghum acreage signed for diversion in the 2 previous years.

Main reason for this increase in diversion is the reinstatement of the provision permitting voluntary diversion of 20 to 50 percent of the base acreage for payment.

Total number of farms signed up is about 1.5 million—nearly 9 percent more than in 1967. These farms had a total corn and grain sorghum base of 76.6 million acres or 67 percent of the total U.S. base acreage. This is about 6.5 million acres above the base on enrolled farms in 1967.

Feed grain production on the prospective acreage (about 113 million acres if farmers carry out their March 1 plans) will total around 166 million tons with a normal growing season and a continued upward trend in yields.



**Weighing Cost
of Livestock Weights**

It doesn't always pay to feed livestock to heavy weights, even when feed prices are low. Fatter animals mean more meat, but often lower feeders' profits.

Last year's bumper corn crop seemingly is a boon to livestock feeders. Corn prices are substantially lower in 1968 than they were in most of 1967.

However, the lower priced feed could work to feeders' disadvantage. In years past, lower feed prices have tempted producers to extend the normal feeding period and market animals at heavier weights. Such a course in 1968 could materially lower feeders' rates of return and cause some industry-wide problems, too.

Whether or not feeding to heavier weights is profitable depends on several economic factors:

- Feeding efficiency and costs.
- Demand for, and supplies of, livestock.
- Price discounts on heavy-weight carcasses.

Feed itself is one of the major costs in livestock feeding. A feeder's profit is determined to a large extent by his ability to convert feed into meat efficiently.

Several studies made in recent years show how rapidly feed conversion efficiency drops as livestock weights increase.

For example, the feed conversion ratio for 600-pound yearling feeder steers is about 6.7 to 1, compared with 8.3 to 1 for steers weighing 800 pounds and 11.2 for steers at 1,100 pounds.

In other words, two-thirds more feed is required to put on a pound of gain as the animal nears 1,100 pounds than was required at 600 pounds. When animals are carried beyond 1,100 pounds, feed conversion ratios

continue to rise at accelerated rates.

It's much the same story with lambs. The quantity of feed required per pound of gain rises from 7.7 pounds for 60-pound feeder lambs to 9.7 pounds for 100-pound lambs. This represents a 26-percent increase. Feed conversion efficiency drops more rapidly above this weight.

Although hogs convert feed more efficiently than either cattle or lambs, feeding efficiency also falls as weights increase.

The conversion ratio rises about 45 percent in the growing and fattening of 50-pound feeder pigs to 225-pound slaughter hogs. It requires about 2.8 pounds of feed to produce a pound of gain from 50 to 75 pounds, 3.9 pounds from 75 to 125, and 4.1 pounds from 125 to 225. Feed requirements per pound of gain increase even more rapidly when hogs are fed beyond 225 pounds.

At the same time that extra costs are being incurred by feeding to heavy weights, other economic factors come into play and further reduce returns to feeders and to the industry.

Two factors of major importance are the depressing effect on prices of the increased tonnage of meat produced and the price discounts on heavyweight carcasses that occur when average slaughter weights increase.

Because of the differing demands for each of the red meats, supply changes affect prices of each differently.

Per capita demand for beef (especially fed beef) has been on the upswing in recent years—which means that moderate increases in beef supplies can be used without serious price consequences.

Per capita pork and lamb consumption, however, has fallen off since 1959. With relatively less favorable demand situations, larger supplies tend to depress prices more than in the case of beef.

Feeding to heavy weights not only affects prices by adding to the total supply of meat, but also can quickly cause an oversupply that sharply lowers prices of heavyweight carcasses—especially of beef and lamb.

The sharp price effect of changes in fed beef supplies and changes in marketing weights was brought out in a recent analysis by USDA:

A 1-pound increase in the quarterly per capita supply of fed beef would result in a price decline of more than \$1 per 100 pounds in Choice steers at Chicago. A 10-pound rise in the average liveweight of steers at seven markets would lead to a price drop of around 50 cents per 100 pounds.

One reason for price weakness that accompanies increases in average liveweight is illustrated in a study conducted by the University of Illinois.

Two similar groups of yearling

steers were placed on full feed. One group was slaughtered at an average weight of 1,114 pounds and the other at 1,442 pounds.

The yield of salable meat as a percentage of carcass weight was reduced nearly 12 percent in animals fed to heavier weights. The additional 328 pounds per steer added only 253 pounds of carcass. And the net result was only 56 additional pounds of salable meat. The rest was mostly added waste.

The actual retail value was reduced more than \$4 per 100 pounds on a liveweight basis, despite a higher dressing percentage for the heavier cattle.

Average slaughter weights of hogs influence pork production the same way that cattle weights affect beef output. Also, the increased amount of fat on hogs held to heavier weights decreases the percentage of salable meat and its value.

According to USDA estimates, holding hogs from 200 to 250 pounds will raise fatness to a degree equivalent to one grade or more. This will reduce the yield of the four major lean cuts by about 3 percent of the carcass weight.

At current prices, the heavier hogs would be worth at least \$1 per 100 pounds less to the packer because of the reduced cutting yields and lower prices for heavier cuts.

The supply-demand balance between heavy and lightweight lambs can be just as easily tipped as in the beef market.

This year promises to be one of continuing large red meat supplies, judging from the large number of animals available for feeding and the relatively low prices of feed.

Producers will stand to benefit from any steps taken to ease the pressure on livestock prices that would result from larger supplies—and from an oversupply of unusually heavy animals. (1)

Lone Star State Leads in Cattle and Sheep Numbers; Iowa Is Tops in Hogs

Texas is still tops in cattle numbers, with nearly 11 million head this January 1. But some other leading States have shifted places in the January 1 rankings by livestock numbers on farms.

At 108.8 million head, the number of all cattle and calves on farms and ranches this January 1 was up slightly from a year earlier.

Among the top 10 States in numbers of cattle and calves, Oklahoma is now No. 7, changing places since last year with South Dakota, now No. 8. Wisconsin (9) and Minnesota (10) also traded positions. Iowa, Nebraska, Kansas, California, and Missouri rank 2, 3, 4, 5, and 6, respectively—the same as last year.

The number of cattle and calves on farms increased from a year earlier in 27 States. Eight States showed no change and 15 registered decreases. The largest gain was 7 percent in Kentucky; the sharpest drop was also 7 percent in North Dakota.

Breaking the "all cattle and calves" category into its parts, Texas led in number of beef cattle and calves with 10.1 million head. In the milk cow category, Wisconsin ranked tops with 2.1 million head.

California was the only State to show an increase in milk cow numbers over a year earlier. Numbers in four other States stayed the same, while in the remaining 45 States they dropped.

First in hog numbers is Iowa, with 13.7 million head—or about one-fourth the U.S. total of 54.3 million. It led second-place Illinois by almost 7 million head. All of the top 10 hog-producing States are in the North Central Region.

Inventory numbers of hogs declined 1 percent in the North Atlantic Region and 2 percent in the East North Central Region.

Farmland Buyers' Lot

Who buys farmland? Active farmers, for the most part.

In March 1967, two out of three farmland buyers were engaged in farming at the time of purchase. The proportion was as high as 82 percent in the Northern Plains States and as low as 44 percent in the Northeast.

But local residents who weren't farmers made up nearly a fourth of all farmland buyers in the Northeast and Southeast. Nationally, such buyers represented less than a fifth of the total.

What did the buyers intend to do with their land? Most planned on farming it.

Nearly all tenant farmers and owner-operators bought land with the object of farming it themselves—either as a complete unit or an add-on parcel to an existing farm.

A surprisingly large percentage of nonfarmer buyers—about 46 percent—also intended to farm their land, at least part time. (2)

The South Atlantic Region registered a gain of 6 percent, while the West North Central and West were each up 2 percent.

The inventory of sheep and lambs this January 1 stood at 22.1 million head, 7 percent under the previous year.

All but six States had fewer sheep and lambs on farms this year than last. Texas ranked No. 1, with 4.2 million head. It was followed by Wyoming and California, with 1.8 million and 1.5 million head, respectively. (3)

Gains in Soybean Acreage Portend Record Output, Carryover This Year

Soybean acreage in 1968 is likely to reach a new high, for the eighth year in a row.

Last March, U.S. farmers indicated they would plant 42 million acres to soybeans this year—about 3 percent more than in 1967.

If yields per harvested acre are

average (allowing for trend), soybean production in 1968 would be a record 1,040 million bushels, compared with 973 million in 1967.

A 1968 crop of this size, plus the prospective carryover next September 1 (now estimated at around 150 million bushels) would bring 1968/69 supplies to 1.2 billion bushels. This would also be an alltime high, topping the 1967/68 peak of 1,063 million.

Farmers who want to participate in the extended price support loan program (resale), using commercial storage for 1967 crops, will need to give written notice to their county ASCS office through which they obtain their loans not later than the loan maturity date (July 31, 1968).

There is no automatic extended loan arrangement for 1967-crop soybeans.

Under the warehouse loan program, producers are responsible for storage cost up to the original loan maturity date.

After 1967-crop soybeans are placed under extended loan in warehouses, the CCC will pay for storage at rates specified in the Uniform Grain Storage Agreement Schedule. (29)

Banker and Farmer Share Benefits As One-Stop Credit Comes to Farmer

Imagine a farmer using a single credit card to:

—Buy seed, fertilizer, pesticides and other production supplies.

—Pay repair bills.

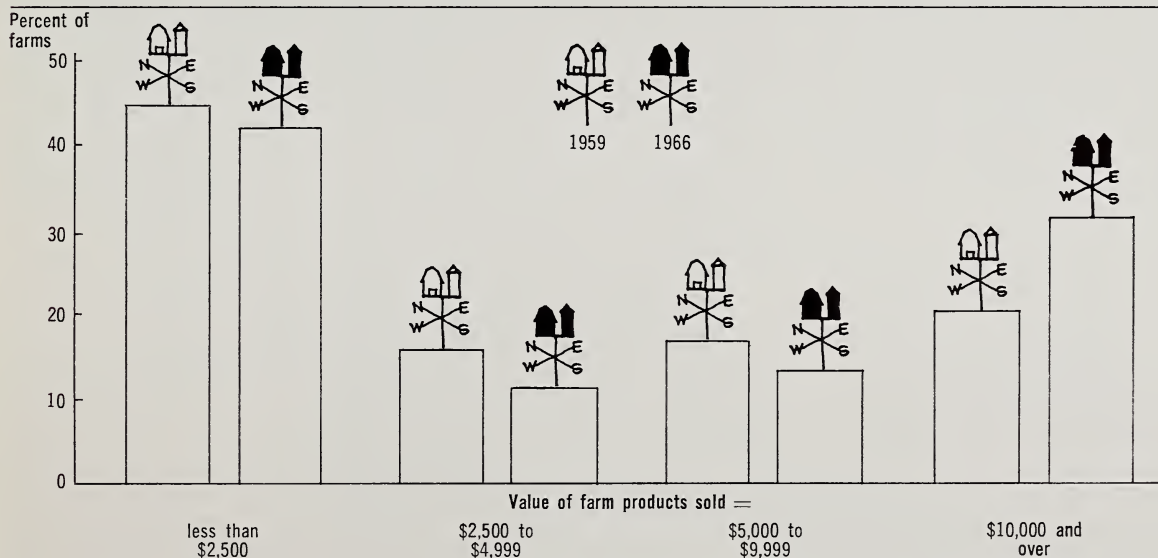
—Buy or rent farm equipment.

—Rent or lease additional land.

Ridiculous? Perhaps not. Already many farm lenders extend a "line of credit" to individual farmers which enables them to draw money from the bank as needed and be charged only for what they use and for the period they use it.

A LARGE NUMBER OF SMALL FARMS. Even though the number of small farms has dropped off since 1959, farmers with value of sales under \$2,500 per year still make up almost half of U.S. farms. The number of

farms with sales of \$10,000 and above, however, is growing. They now comprise almost one-third of the Nation's 3 million operating farms and receive about 85 percent of the \$43-billion farm marketings. (4)



USDA NEG ERS 5535 68 (3)

Farmers who use "one-stop shopping" for production credit find it offers these advantages:

—Convenience. The farmer does not have to bother with separate credit arrangements for each of his production needs.

—Better credit management. The farmer and the lender plan together to determine total credit needs. This forces the farmer to do a better job of budgeting and planning his operation. With one loan from one lender, the management and scheduling of repayments is simplified.

—Dependable source of credit. Farmers who do a good job of planning their credit needs and who have been successful in the use of a "line of credit" frequently find that their lenders treat them as "preferred" customers, thus assuring them a dependable source of credit.

Many lenders prefer the line of credit approach. Because they know the total credit picture of a farmer they can do a better job of making loan decisions.

A possible disadvantage of this approach is that farmers could become too dependent on one source of credit. On the other hand, farmers can keep lenders on their toes by shopping for the best deal on a credit package.

If this one-stop shopping production credit becomes commonplace, why shouldn't the next step be the issuance of "production-credit" cards? (5)

Plentiful Feed Grain Supplies May Boost Livestock Feeding in 1967/68

At 248 million tons, the total U.S. supply of feed grains and other concentrates for 1967/68 is about 5 percent larger than a year earlier and about the same as the 1961-65 average.

More favorable livestock-feed price ratios and more high-moisture corn this year are likely to encourage heavier feeding per

animal unit. It will probably be 4 to 5 percent higher than in 1966/67.

The number of grain-consuming animal units to be fed in 1967/68 is expected to be about the same as the 180 million head fed in 1966/67—about 5 percent above the 1961-65 average.

Feeding of feed grains and other concentrates will probably reach a new high—about 6 million tons more than the 161 million tons in each of the two preceding years.

Supplies of high-protein feeds are expected to total a little above last year's 17.6 million tons. Soybean meal feeding may increase slightly over last year's 10.6 million tons. However, the small 1967 cotton crop is expected to reduce cottonseed meal supplies about 10 to 15 percent from last year's low level of 1.8 million tons. (6)

Cutback in Late Spring Potato Crop Could Help Bolster Growers' Prices

The important late spring potato crop is expected to be sharply below both 1967 and average production.

This is good news for potato producers.

Record potato output in 1967 made for overly large market supplies and below-average farm prices.

Storage stocks this January 1 were a record 141 million hundredweight—11 percent larger than the previous year's high. U.S. prices to growers this January-March averaged \$1.56 per hundredweight—sharply below a year earlier and lowest for the period since 1962. However, buyers are now looking to the new crop. And it looks like that crop may be small.

Planted acreage of late spring potatoes is down 19 percent from last year, with reductions indicated in all major States.

Acreage in California, which usually accounts for two-thirds of the late spring tonnage, is down 23 percent. Acreage in Arizona is down 7 percent; in Texas, down 21 percent.

Prices to growers are expected to average well above the moderate levels of a year earlier in late spring. (30)

Old Apple Orchards May Not Die, But Bountiful Yields Just Fade Away

The old apple tree may still cast a lot of shade, but it won't yield as many apples as it did in its youth.

Statistics culled from a survey in the State of Washington—the Nation's No. 1 apple-producer—indicate that old age pares down tree productivity.

Among the top four varieties grown commercially, yields rise rapidly between 5 and 20 years of age. After 20 years, yields begin to level off and top out until a tree reaches the ripe old age of 45. Then yields drop off sharply.

Golden Delicious (most prolific variety) and Rome Beauties reach peak production at age 30; Red Delicious and Winesaps hit their prime at age 25.

Growers can figure tree mortality rate at about one tree per acre per year for standard trees; two trees per year for semi-dwarf trees; and about nine trees per year for trellis-dwarf trees.

The higher mortality rate for other-than-standard trees, however, is at least partly counterbalanced by the higher density plantings they permit.

Producers can normally expect about 15 percent more apples per acre from semi-dwarf trees and 35 percent more from trellis-dwarfs than they can from standard trees—depending, of course, on weather, orchard site, and managerial ability of the orchardist. (7)

As greater numbers of city folk head for vacation farms this summer, plans of the hosts depend on who their guests will be and what kind of activities they'll like.

What kind of person will fish in my pond? Picnic under my trees? Or camp in my woods?

These are questions for any farmer thinking of getting into the business of outdoor recreation.

A study by the Economic Research Service may offer some helpful information. Vacationers from Ohio and surrounding States were asked what kind of

outdoor recreation they and their families enjoyed and how often they participated in this activity. Total participation in all outdoor activities by all in the survey averaged out to about 44½ days a year per person.

The most popular activities in terms of the number of persons participating were swimming, sightseeing, and picnicking.

Golf and horseback riding were also important. Although not as many people participate in these activities, they do so more often. Only 11.5 percent of those canvassed were golfers, but they averaged 19 days a year on the links. The picnickers, by contrast,

ate in the open something less than 9 days a year.

Location was important to the success of some enterprises. Over half the outdoor activities took place within 20 miles of the participants' homes.

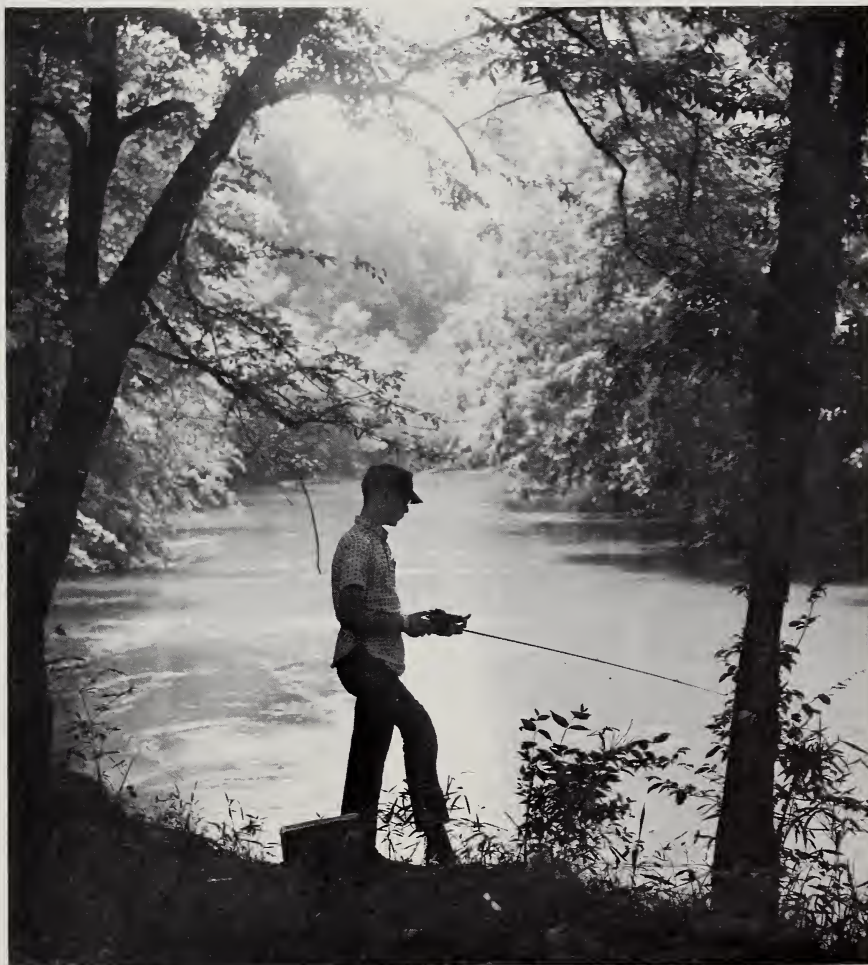
Activities that drew people from the longest distances were camping, hunting, and sightseeing. Swimming and ice skating had the least drawing power in terms of distance.

The kind of facility that appeals depends in good measure on the education, age, and income of the family members.

Education. The man who pursues outdoor recreation averages



**WHO
PLAYS
ON
FARMS?**



slightly better than a high school education.

Higher educational levels are associated with golf, skiing—including water skiing—and ice skating. People with less education tend to fish, hunt, picnic, and camp.

Occupation. The most avid outdoor recreation fan is a salesman. He ranks high in his interest in all outdoor activities, but especially in water skiing. His interest runs lowest in riding, camping, and ice skating.

Professional people are apt to be most interested in ice skating and golf, and least interested in fishing, hunting, and picnicking.

Managers, proprietors, and officials—such as buyers, inspectors, and postmasters—have more than average interest in riding, about the average interest in swimming, and less than the average taste for fishing, hunting, skiing of either type, skin diving, or picnicking.

Clerks like everything; they are well represented in all types of outdoor recreation. They rank especially high in riding, skin diving, and skiing.

Craftsmen favor hunting, camping, and fishing. But their interest in other forms of outdoor recreation dwindles rapidly.

Service personnel rate fishing tops, picnicking so-so, and are not much interested in the rest of the list.

Age. The younger respondents liked to ice skate, swim, snow, and water ski. The middle age tastes ran to ice skating, riding, and swimming. Older people opted for golf, hunting, fishing, and sightseeing.

Family income. The higher the income, the higher the interest in outdoor recreation—up to a point. And the point is about \$12,000 a year. After that participation begins to fall off.

Not surprisingly, the lower income families in the survey participate in the low cost activ-

ities such as picnicking and fishing. The middle income groups go in for water and snow skiing and boating. And the higher income families pursue such moderately costly activities as golf and ice skating. (8)



Farm Size, Distance to City Affect Level of Rural Income in Minnesota

In many States, the most prosperous rural residents seem to be located in counties near urban centers that offer nonfarm employment.

Minnesota is one example.

The highest levels of median family rural income—over \$5,000—are in counties surrounding the Twin Cities of Minneapolis and St. Paul, according to an ERS study based on 1960 census data.

The next highest range of rural incomes, \$4,000 to \$5,000, is in areas adjacent to smaller cities.

In the Red River Valley in the north central part of the State and in south central and southeastern counties, rural incomes range from \$3,000 to \$4,000. These areas are largely agricultural.

Lowest rural incomes are found in a band extending from the southwest to the central part of the State. There are no urban centers in this area.

A possible solution might be to develop industry and nonfarm enterprises in the poorer rural counties, thus boosting chances for better incomes.

But adding off-farm employment to low-income rural areas might not solve the problem. The factors that make for a poor rural county are many, and not wholly related to their distance from economic centers. The Minnesota study indicates that poorer counties had:

- High proportion of people over 45 years of age.

- Few people with a high school education.

- Substantial outmigration during the 1950's.

- Small farms, on the average.

- Limited capital available.

Another factor studied was a crop index—the value per acre of crops grown in a county in 1959. The crop index was important in explaining the rural income level in local counties; the higher the crop index, the higher the rural income level.

The relationship of the crop index, and of farm size, to income levels points to agriculture as an important determinant of development in local counties in Minnesota.

Programs to improve the conditions in agriculture remote from urban centers may be cheaper and have a greater impact on income levels than superimposing industry on a farming area where location, population, and resources might not sustain it. (9)

Farmers Turning to Recreation May Find More Satisfaction Than Profit

Bumblebees in theory can't fly—aerodynamically speaking—but that doesn't seem to bother them.

Similarly, small on-the-farm recreation enterprises don't follow the rules—economically speaking. They just break even or are operated at a loss—but many are in business for years.

Nationwide, recreation services are becoming more specialized. And facilities are more luxurious.

Where does the small on-the-farm venture fit into this sophisticated picture?

It's likely to stay in the picture as a small, private business. But its impact on the total industry will be minimal.

This is a conclusion drawn by ERS economists and discussed at a recent recreation workshop in New Mexico.

Many rural recreation enterprises are operated in a very haphazard fashion.

The farmer who lets folks camp on his place and sets up a tin can on a post near the road to collect his dollar operates a wind-fall business. He collects what he can without additional investment for facilities or services.

He could be doing better financially. He could even have made a larger profit. But he likes it the way it is. Folks are happy and there's no fuss.

With a little capital involvement toward a larger-scale operation, such a venture can move from a pin-money project to a supplementary enterprise on farmland.

For example, a farmer who lets groups hunt on his land may decide that demand is high enough for him to make a little money by attracting even more hunters. So he will improve trails or roads and maybe provide overnight shelter. And he'll cope with

complications arising from health regulations, game laws, licensing, and taxes.

His cash returns will then be greater because his customers will probably be willing to pay more for the added services. And a little more profit might be expected.



The enterprise would still take second or third place in the overall farm plan. It still depends on resources not needed by the major enterprise. It often may provide work for unemployed family members and additional uses for temporarily idle equipment.

A shift from commercial farming to full-time recreation business could be the next step. Few take it.

Many have learned from experience that dealing with the public is quite different from dealing with crops and livestock.

The recreation product, unlike

a field of corn or a herd of dairy cows, is unstandardized and the market is even more unpredictable.

A farmer who tackles even a part-time recreation enterprise has to be prepared to handle a wide variety of people who won't always be on their best behavior.

He'll have to cater to their whims and keep them happy. He'll also have to keep his farm in good working order. It's not easy to do both.

Any potential manager of a recreation enterprise will find that he needs some training in management and public relations. He needs to be aware of State and local regulations, such as hunting and fishing laws, or health and sanitation standards which govern dealings with the public.

And before he decides to invest, he'd do well to look around. Have similar ventures in his area failed? Is there a demand for recreation services? Would he be duplicating already abundant facilities?

He could be sitting on a gold mine—but then again, he might not. (10)

Regional Regulations for Water Use Share Basic Problem: Who Gets It?

"Sumer is icumen in," as the old English ballad goes, and so are summer vacationers, water sports, and conflicting opinions about water use.

Vacationers headed for the open spaces—to camp, swim, fish, or just laze—will all want one thing. Clean, fresh water.

In most States, public and private use of water is regulated by a State agency. Often, use is further regulated by court orders arising from specific cases.

In the eastern half of the country, the "riparian doctrine" governs the use of natural watercourses.

Owners of land along rivers or lakes have rights to the use of those waters. Frequently, the water is restricted to use on riparian land.

"Reasonable use" is required by law, though it often has to be defined in court.

Laws in most Western States, including our desert areas, are largely based on "prior appropriation."

The first one to claim the water has the first right to use it. Use of the water is not restricted to riparian land, but rights may be forfeited for nonuse.

The water which each user may have is limited by its availability above quantities required to satisfy any pre-existing rights.

Preferences for one type of use over another may operate in some situations.

Where do the conflicts come in?

Varying public interests, public versus private rights, problems of pollution, drainage and flood control, and the need to keep regulations compatible with new findings about conservation and resource development—they all contribute their share.

The challenge is to develop a system of water rights which provides enough security to encourage desirable development and investment and still has enough flexibility to meet changing conditions. (11)

Wanted: Rural Work Off the Farm; Laborers Still Outnumber Farm Jobs

In 1960, rural American men between the ages of 20 and 64 numbered about 13.5 million.

By 1970, 3 million will have died or reached retirement age, but another 5.3 million rural youth will have reached working age.

If there were no migration to and from rural areas and no change in job opportunities, about 44 percent of these young

men would have to leave their home communities to find work.

Even with outmigration continuing at its present rate, the decline in agricultural employment would mean that rural non-farm jobs will have to increase by about 300,000 a year to accommodate the growing labor force.

Where will these jobs come from?

We usually think first of manufacturing. But recreation enterprises and public services—particularly those relating to education, health, and retirement—are also possibilities. Programs for natural resource conservation and development, too, may offer job opportunities.

Since the Vocational Education Act of 1963, the emphasis of vocational programs has shifted somewhat in some rural schools, where programs have traditionally been oriented towards jobs in agriculture. Realistically, training should be slanted more toward kinds of employment opportunities likely to be available in the future, and not so much toward strictly farm jobs.

Preparing young people for jobs is also one of the concerns of the Manpower Development and Training Program and is a goal of the Economic Opportunity Act as well. But in 1966, less than 20 percent of the 230,000 MDTA enrollees were from rural areas.

As training opportunities in rural areas increase, they should take into account the increasing transferability of skills between rural and urban employment. Many farm operators and farmworkers engage in some form of nonfarm work during the year and some rural residents commute to jobs in nearby urban centers.

Outmigration is likely to slow down if rural communities can attract new enterprises and if the rural population gains the skills to fill new jobs that may not revolve solely around farming.

Maintaining a viable rural economy will require not only attention to people but also to the communities in which they live—focusing on development of local services and facilities. (12)

Formula for Fun-Filled Vacation—Have Enough Time and Money to Spend

"Having a wonderful time. Wish you were here." Signed: the Smiths.

"Can't wait to get home. There's nothing to do here and this place is so expensive." Signed: the Joneses.

These two post cards could have been mailed on the same day from the same lakeside resort. Why the big difference?

What a vacationer takes with him—in terms of time, money, and health—is often as important as what he finds at his destination. This is one of the conclusions reached in a recent ERS study of why some Missourians were completely satisfied with their leisure activities while others were not.

Persons with ample time and money generally could seek out the recreation site which met most of their wants and needs—and thus were completely satisfied with its facilities. On the other hand, the lack of leisure or money often made for a less than ideal vacation.

Poor health, which hampered physical ability, was another big reason why Missourians were less satisfied with the recreation activities available to them.

Some knowledge of the predominant income and age characteristics of potential customers is important for those planning a recreation enterprise. For example, it probably wouldn't pay to promote water skiing at a lakeside resort frequented by retired persons. On the other hand, a golf course or nature walk might prove profitable. (13)

WHAT PRICE FEED PRODUCTION ?

Manufacturers of mixed feeds for poultry and livestock aim toward higher quality feeds with lower production costs. ERS economists analyze variations on this theme.

A low-cost, balanced diet—that's what today's farmer-feeders are demanding for their livestock and poultry. And feed manufacturers are out to see that they get it.

Nutritional research has greatly affected feed manufacturing operations. Use of additives such as vitamins, antibiotics, and drugs have created production problems as well as higher manufacturing costs. At the same time, farmer feeders have realized greater feeding efficiencies.

Feed costs make up about two-thirds of livestock and poultry production costs. It therefore follows that farmer-feeders want to keep costs as low as possible

and the level of services as high as possible. These services include feeding and production advice, delivery, credit, customized formulas, and quantity discounts.

Manufacturers of mixed feeds have had to find ways to reduce the cost of producing the more sophisticated feeds while trying to keep prices down.

Technological developments, specialization, and decentralization in the industry over the last 15 years have made the task a little easier.

Centering plants near major livestock and poultry feed consumption areas allows direct distribution to farmer-feeders at lower transportation costs. Savings in transportation costs may also be realized in the purchase of raw materials.

ERS economists recently completed an analysis of feed manu-

facturing costs. It included the effects of plant size, number of shifts employed, hours of operation, and utilization of capacity on the costs and efficiency of plant operations.

Model plants ranged from 80 to 300 tons an 8-hour day and operated 260 days a year. Pelleting and packaging in various production combinations were analyzed. Further analysis was made when all models were producing from 40 to 100 percent of their rated capacity. In all, 54 possible models were considered.

Initial investment in an 80-ton feed mill used only for bulk feed—including all equipment and facilities—was close to \$300,000. The initial investment amounts to about \$14.00 per ton of rated capacity.

A 300-ton operation, pelleting all of its feed and packaging half, had an investment of almost

FEED PRODUCTION COSTS DROP AS MILL SIZES INCREASE

| Mill size and method of operation | Investment | Operating costs | | Labor | Depreciation |
|--|------------|----------------------------------|----------|-------|--------------|
| | | Fixed | Variable | | |
| | Dollars | Dollars per ton of annual output | | | |
| 80-ton mill: | | | | | |
| All mash None bagged | 299,730 | 2.26 | 2.57 | 1.35 | .78 |
| All pelleted Half bagged | 298,840 | 2.80 | 4.02 | 2.26 | 1.07 |
| Half pelleted Half mash All bagged | 378,570 | 2.69 | 4.38 | 2.80 | 1.01 |
| 150-ton mill: | | | | | |
| All mash None bagged | 412,395 | 1.72 | 1.95 | 1.00 | .57 |
| All pelleted Half bagged | 565,975 | 2.17 | 3.33 | 1.86 | .82 |
| Half pelleted Half mash All bagged | 510,893 | 1.98 | 3.41 | 2.20 | .72 |
| 300-ton mill: | | | | | |
| All mash None bagged | 666,390 | 1.44 | 1.60 | .81 | .46 |
| All pelleted Half bagged | 895,155 | 1.81 | 2.71 | 1.39 | .67 |
| Half pelleted Half mash All bagged | 827,525 | 1.68 | 2.83 | 1.77 | .60 |

\$900,000, or a little over \$11.00 per ton of designed output.

Cost of facilities accounted for 40 to 50 percent of the investment.

Operating costs varied with the size of production unit and type of operation.

For a 300-ton operation that handled all its output in bulk, operating costs amounted to a little over \$3.00 per ton.

In an 80-ton operation, packaging all its output and pelleting half, operating costs were just over \$7.00. Pelleting and packaging the entire output in an 80-ton plant would boost operating costs to \$7.13 per ton of annual production.

Total operating costs dropped

as comparable plants increased in size and increased as plants of the same size added more functions, such as pelleting and packaging.

Fixed costs, such as depreciation, taxes, insurance, and interest, were highest in an 80-ton plant—\$2.80 per ton—and lowest in a 300-ton plant—\$1.44 per ton.

Average fixed cost per ton for the 80-ton group was \$2.59, and for the 300-ton group, \$1.64. Lowest fixed costs in each group were in bulk plants without pelleting.

Depreciation was the largest fixed cost item—ranging from \$1.07 per ton in one of the 80-ton plants to \$0.46 per ton for a 300-ton plant. Equipment deprecia-

tion accounted for 60 to 75 percent of the total.

Labor costs per ton decreased as sizes of comparable plants increased, the greatest decrease being in production labor.

Man-hour requirements ranged from 0.29 man-hour per ton in the most efficient plant—a 300-ton operation—to 1.00 man-hour per ton in the least efficient—an 80-ton plant.

Pelleting and packaging total plant output requires at least twice the man-hours per ton as the bulk plants.

Increasing hours of operation to 16 hours per day reduced costs per ton an average of 20 percent—mostly in fixed costs. (14)

Inside the Eating-Out Industry: How The Nation's Annual Check Is Divided

The Nation's annual check for eating out is estimated to add up to a whopping \$22 billion. And that doesn't include any cocktails, wine, or other alcoholic beverages.

This information comes from a survey of restaurants, cafes, drive-ins, cafeterias, and other places offering ready-to-eat food.

The survey was conducted jointly by the Economic Research Service and the food industry. It covered representative food service operations of all types in all States but Hawaii and Alaska.

However, the survey excluded food service connected with elementary or secondary schools, military services, Federal hospitals, Federal or State correctional institutions, onboard bus or airline food service, and boarding houses. These establishments serve foods having an estimated retail value of \$6 billion annually.

The survey was designed to analyze:

—Expanding demand for food served away from home.

—Potential changes in the food service industry and their pos-

sible impact on agriculture throughout the country.

—Marketing efficiency of the food service industry.

The total bill for food and non-alcoholic beverages purchased by the food service operations included in the survey was an estimated \$9.8 billion, with wholesale purchases accounting for the bulk of this.

For every dollar of sales, the owner of an eating place in the sample pays out an average of 45 cents for food. But this figure usually runs lower for large establishments and higher for smaller ones according to the survey findings.

For example:

—Owners of eating places grossing less than \$20,000 a year spend 51 cents out of each sales dollar for food.

—Those grossing \$50,000 to \$100,000 pay 45 cents of each sales dollar.

—And those who take in more than \$300,000 pay only 42 cents for food per dollar of sales.

About 87 percent of all public eating places are independently owned and have no affiliation with a franchise operation. Two percent are independently owned but operate under a franchise. The rest are chain-owned and operated.

Fourteen percent of the establishments surveyed accounted for more than half (59 percent) of the money spent in all the away-from-home eating places covered in the survey.

Separate eating places have more outlets and larger total dollar sales than eating places in any other kind of business. A closer look at this segment of the industry shows about four out of five eating places are located in cities. Sites of the others are about equally divided between close-in suburbs and further-out rural areas.

Where do these separate eating places buy their food supplies? Here are some selected findings:

Where they buy. If table or booth is the main type of service, 46 percent of the establishments order eggs through a wholesaler or other middleman.

If cafeteria-style is the primary type of service, four out of five establishments order their shortening and cooking oils from wholesalers or middlemen.

But a surprising number of separate eating places buy their canned vegetables, flour, and margarine from the same place the housewife does—the retail food store or neighborhood supermarket.

Number of deliveries. Frequency of food deliveries to separate eating places varies with commodities and size of enterprise.

Bakery goods are delivered to most outlets 20 or more times monthly. Flour, cereal products, shortening, and cooking oils are delivered about four times monthly.

Including the Kitchen Sink

Dough dividers, can openers, exhaust fans, power meat saws, and portable sink sanitizers.

You'll find them all in the big tool kit needed to operate the Nation's away-from-home eating establishments.

Certain pieces of equipment are found in almost all public eating places and institutions. Reach-in refrigerators, for example, are found in 94 percent of them. About 34 percent have dishwashing machines; over 25 percent, floor maintenance machines; 15 percent, power garbage disposals; and 16 percent, scraping and pre-wash equipment.

Because of the individual needs in serving people, there is much variation in the types of equipment used by operators of food service establishments.

What's needed to equip and maintain these places will vary with the type of service and food offered, the form or storability of the food when received by the establishment, the degree and manner of preparation, and the outlet's size of operation. (17)

Establishments with over \$300,000 in gross food sales average more than 20 deliveries of meat per month, over 10 deliveries of poultry, and about 10 deliveries of eggs.

Separate eating places with annual food sales under \$20,000 receive 11 deliveries of meat and about six deliveries of poultry and eggs per month. (15)

Workers in Eating Places Outnumber Food Processing Industry Jobholders

As large as the food and beverage manufacturing industries are, retail grocery stores can almost match them person for person in terms of people employed.

Yet eating and drinking places have them both beat, employementwise.

At 2.2 million, the number of people working either full time or part time in eating and drinking places in 1967 topped both the food processing and food retailing industries.

The payroll of retail grocery stores carried 1.4 million people in 1967 (about 44 percent part time).

And 1.8 million people worked in the food and beverage manufacturing industries (1.2 million of them production workers).

According to the Department of Labor, which supplies these data, employment in eating and drinking places has gained steadily in recent years and shows signs of growing around 6 percent more in 1968.

Also expected to increase this year—but only around 2 percent—is the number of people working in grocery stores.

Food and beverage industries, however, anticipate only about one-half of 1 percent increase in the number of employees during 1968. The employment level of these industries has been almost stable the past 10 years. (16)

MEXICO: THE PATIENT REVOLUTION

Mexico's agriculture has thrived on inputs of time and patience—and water, too. These are parts of an economic model that might be a guide for other countries.

Patience and a bent for agriculture. These heritages of the Mexican people are among the elements that have contributed to the outstanding success of the country's agricultural development.

This development has been continuing for over half a century in much the same way as it was begun: making limited promises for the future, improvising upon itself, and reacting to current events.

And Mexico is still adjusting to changes. The new is in general use, though old practices have not yet been discarded.

This has been the result of Mexico's very rapid economic development: a new country superimposed upon an old one.

Agriculture. Mexican agriculture now satisfies the basic food needs of this burgeoning economy.

While the quantity and quality of Mexicans' diets are now high (2,700 calories and 67 grams of protein per capita), food imports are virtually nil (less than 2 percent of farm output). And food exports account for about one quarter of all exports and are expanding.

Such abundance has been achieved through rapid growth in agricultural production—an average compound rate of increase of 4.7 percent per year between 1940 and 1965.

Among the world's developing countries, this growth rate is one that all but a few would envy. In Latin America, it was bettered only by Costa Rica.

Components included in Mexico's longrun average growth of farm output are an outstanding 5.4-percent growth rate for



crops, 4.2 percent for dairy products, and 2.9 percent for meat.

The elements underlying these high rates for growth of production form the basis of a model for leaders faced elsewhere in Latin America with the practical task of contriving progress.

A study sponsored by the Agency for International Development (AID) and jointly carried out by the Mexican National Institute of Agricultural Research and the Economic Research Service has uncovered some of the elements behind the Mexican success story.

Time. The Mexican experience suggests that agricultural development may involve a long gestation period. Best laid plans are not fulfilled immediately.

The "Mexican Revolution" began in 1910. It had a concern for the rural, farm sector from the outset. Yet more than 25 years passed before that Revolution began to bear fruit in agriculture.

Political stability. Mexico gave more weight in its first stages of development to political stability rather than purely economic rewards.

This manifested itself in early attention to land reform. In 1910 a mere 3 percent of all Mexican rural family heads owned land. But by the late 1930's over 1 million Mexicans had been given farmland by breaking up huge, feudalistic "latifundios."

Those who acquired land have formed part of an enduring base for the political system. Part of the payoff has been 58 years of political stability, without which plans for economic growth would certainly have been thwarted.

Public investment: Water. With political stability secured, attention turned in the late 1930's to forming a base for economic progress.

No attempt was made to

transform agriculture overnight through simultaneous public investments in projects A to Z. A commitment was made to just one primary program—irrigation of Mexico's vast arid zone.

The economic returns have been large. Once the irrigation districts underwritten by the government came "on-stream,"

Muchas Exportaciones

Earnings from exports are one of the big benefits Mexico has reaped from its agricultural development.

Mexico's shipments of farm products to other countries soared in value from under \$20 million in 1940 to about \$505 million in 1965. (Total exports rose during the same period from about \$120 million to well over \$1 billion.)

The United States is Mexico's best foreign customer for farm commodities. We stepped up purchases from an annual average of about \$260 million worth during 1960-64 to around \$328 million in 1966. And among our Latin American agricultural suppliers, Mexico ranks second only to Brazil.

Coffee, cattle and meat, sugar, fruits, and vegetables account for about four-fifths of our annual bill for Mexican farm products. Strawberries and fresh tomatoes made up two-thirds of our \$103-million imports of Mexican fruits and vegetables alone in 1966.

U.S. farm products exported to Mexico have ranged between \$75 million and \$85 million in recent years. Feed grains, hides and skins, and dairy products usually predominate. (31)

production growth was truly "explosive."

More important, the government irrigation districts have served as catalysts for cumulative technological change. As farm machinery, insecticides, improved seeds, and chemical fertilizers became available, they were most uniformly adopted within the irrigation districts.

Fertilizers. Of the new inputs

cited above, chemical fertilizer use has expanded most rapidly. It is also the single input whose price relative to prices received for all crops has shown a steady decline from 1940 to the present.

This suggests that Mexican farmers have been sensitive to forces making for the profitability of their enterprises: that economic reward has motivated dynamic change.

Land. Just as convenience foods have been added to oldtime staples on the shelves of Mexican consumers, new and sophisticated inputs (water, fertilizers, etc.) have been to the old, traditional inputs for Mexican farmers.

Land has not been withdrawn from production. To the contrary, its use has expanded at such a rate as to account for about one-half of Mexico's crop production growth since 1940.

Most of this expansion occurred in a period (1940-53) when farm incomes were enhanced by increased crop prices that were not offset by rises in production costs.

The results. A new agriculture superimposed upon an old has brought use of new inputs, but continued increases in employment of the old ones.

Though slow to get started, progress has been made at a very rapid rate since 1940—in part sparked by public investment in irrigation and motivated throughout by private economic rewards operating within a climate of political stability.

The payoff has been high.

Rapid production growth, better diets for the population, smaller proportions of family expenditures allocated for food, and a large and expanding net export balance in agriculture that contributes to the plus side of the nation's overall trade position. These are some of the most obvious benefits. (18)

West German Farmer Gets Smaller Part of the Food Deutschmark

Farmers of West Germany added up their 1967 successes and disappointments with many of the same results that accrued to farmers elsewhere in the world.

The annual West German Government report on agriculture (the "Green Report") includes the following highlights:

—Record agricultural output.

—A decline in the number of farms and farmers, with an increase in farm size.

—Higher net income per farm, but a continued lag of farm labor wages in relation to paychecks of industry workers.

—A smaller share for the farmer of the retail food deutschmark.

Despite a marked recession last year in industry, and depressed consumer demand, agricultural output in 1966/67 reached a new record of 55 million metric tons (grain equivalent). It is forecast even higher, at 58 million tons, for 1967/68.

A strong increase in production during the past 10 years has been due almost entirely to expansion in the livestock sector. It now accounts for about 80 percent of farm marketings.

Last year German farmers produced all the fluid milk used in the country, 94 percent of the pork, 86 percent of the beef, 70 percent of all the grain needed, 48 percent of the poultry, but only 5 percent of vegetable fats.

German consumers continue to rely on imports for about one-third of their total needs, either directly as foods or as feedstuffs.

The number of persons employed in agriculture, forestry, and fisheries has been declining in recent years and fell 2.7 percent during 1966. The number of persons employed in this group—though it makes up a sizable 10.6 percent of the total labor force—

has now shrunk to less than half the size it was before World War II.

About 2,215,000 family workers and 201,000 hired workers were employed full time in German agriculture last year. The part-time force consisted of another 1,005,000 family members and 145,000 hired workers.

Farms, too, dwindled in number—from 1,423,900 in 1966 to 1,401,500 in 1967. The decline occurred among farms with less than 50 acres.

Although farm size is increasing, the average West German farm is still less than 23 acres.

Cash receipts in 1966/67 from farm marketings were larger than in the previous year. And net income per farm rose a substantial 4 percent—to about \$2,380. It is expected to show the same rate of gain or more during the farming year ending June 30, 1968.

But the farmer's share of retail food sales has been declining. Back in 1950/51, his share was 64 percent. Last year it was 52 percent. (19)

EEC Variable Levy System Pinches U. S. Poultry and Egg Shares Sharply

In the past 6 years the European Economic Community has imposed variable levies on all imports of grains, pork, poultry, eggs, rice, beef, veal, dairy products, and olive oil from non-member countries.

What are variable levies? What impact have they had on U.S. exports to the EEC?

The EEC's variable levy system is designed to bring the price of imported items up to that received by farmers in the EEC countries.

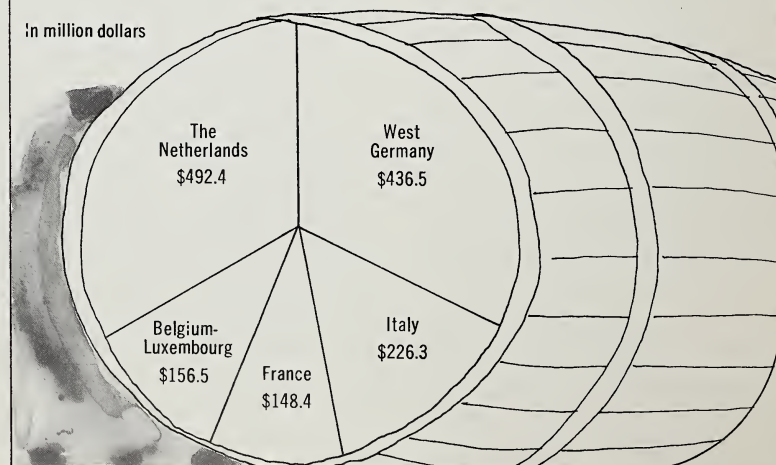
Basic goal, of course, is to give EEC farmers adequate incomes compared with other segments of the economy. This, in turn, provides the incentive to expand production, thus reducing the need for imports.

During 1962–67, our agricultural exports to the EEC increased by 27 percent. Shipments of U.S. products subject to vari-

EXPORTS TO THE EEC: U.S. agricultural exports to the European Economic Community totaled \$1,460 million in 1967—down about 7 percent from the \$1,561 million of 1966. (Totals include transshipments.)

Our biggest market abroad for farm products, the EEC has accounted for nearly one-fourth of U.S. agricultural exports since 1962. Within the EEC, the Netherlands was our most important buyer last year, taking about one-third of our shipments to the region. It was followed closely by West Germany, with about 30 percent. (20)

In million dollars



able levies gained about 13 percent while exports of nonvariable levy commodities rose about 37 percent.

Feed grains, wheat, and rice account for the bulk of U.S. exports subject to variable levies—sometimes called “equalization fees.” Overall, our exports of these commodities rose during 1962–67. However, their gain can be partly attributed to the EEC’s efforts to expand meat production.

Feed grain output within the EEC has not matched the expanding requirements brought about by increased livestock and poultry production. As a result, the EEC has imported larger quantities of feed grains, with the United States maintaining a sizable share of the total. In 1966 our feed grain exports to the EEC reached a high of \$476 million.

Last year U.S. feed grain exports declined somewhat from the year before. But factors other than the variable levy explained the drop: U.S. stocks of feed grains were reduced because of the smaller 1966 crop. Favorable prices within the United States discouraged exports, while large feed grain crops in Argentina, South Africa, and Europe increased the available supplies of feed grains within the EEC.

U.S. wheat exports to the EEC have registered sporadic gains since 1962, generally when EEC output was insufficient to meet domestic demands. Our rice exports have gained sharply, however. In 1967 they were 81 percent above the 1962 export value.

In July of 1967, the unified grain system went into effect within the European Economic Community, permitting movement of grains between member countries without any trade restrictions.

Such freedom of movement should encourage greater trade between the EEC countries and could also stimulate larger grain

production within the EEC. A strong increase in production, due to the equalization of grain prices within the EEC, would have the effect of lowering demand for U.S. feed grain exports in the coming years.

The commodities which have borne the brunt of the variable levy system are poultry and eggs.

Domestic production of poultry and products has expanded within the EEC. At the same time, our exports have fallen 65 percent from 1962—reaching a low of \$19 million in 1967. A drop-off in broilers and fryers accounted for most of the decline.

The principal nonvariable levy commodities which we exported to the EEC countries in 1967 were soybeans, oil cake and meal, tobacco, fruits and vegetables, and cotton.

Our soybean exports, which account for the largest single share of nonvariable levy commodities, totaled \$294 million in 1967, up 81 percent from 1962. Exports of oil cake and meal, valued at \$157 million, ranked as the second largest commodity and were up 240 percent from 1962. Both commodities are used in livestock feed. (21)

Output of India's Tractor Factories Doubles; Imports Stepped Up, Too

Manufacturers in India will be turning out more than twice as many tractors in the year ending June 1968 as they did 2 years earlier, according to the Government of India's Planning Commission.

Manufacture of farm tractors is expected to reach 13,000 in 1967/68, compared with 6,300 in 1965/66. International firms in India account for the present domestic output.

Along with the increasing number of made-in-India tractors, imports of farm tractors, too, have been stepped up.

Happy Returns

This year is the 10th anniversary of the European Economic Community—born officially in 1958.

The Community was created to integrate the economies of France, West Germany, Italy, Belgium, the Netherlands, and Luxembourg. In the ensuing years, the group has been variously referred to as the EEC, Common Market, Community, Inner Six, Six, Euromarket, and Euromart.

By any name, it has been the subject of much published material running to many words in an assortment of languages.

Coincidental with the Common Market anniversary is the publication of *Agriculture in the European Economic Community: An Annotated Bibliography, 1958–66*, prepared by the Economic Research Service.

The new bibliography covers a selected list of 323 titles. Emphasis is on material relating to the demand, supply, and trade of agricultural commodities. Studies in English, French, German, Italian, Dutch, and Spanish are included. (23)

Indian import statistics (reported for years ending March 31) show a rise from 3,800 in 1964/65 to 6,000 in 1966/67.

Because of the shortage of convertible currency, most imports of farm tractors come from Poland, Yugoslavia, the USSR, and Czechoslovakia under trade agreements.

Demand for tractors has been shifting in recent years toward the smaller sizes. Prices of these delivered from Eastern Europe have been ranging between \$1,250 and \$1,500, compared with over \$2,000 for comparable British models.

Secondhand farm tractors are also much in demand. Used U.S. tractors—mostly large types imported for use in experimental work—are generally sold within the country. The rupees received for them are then plowed back into further agricultural research. (22)

Agriculture Acts To Defend Dollar; Nearly \$1 Billion Comes Home in '67

The deficit in the U.S. balance of payments is a subject of concern not only in Washington but in the monetary capitals of the world.

The balance of payments deficit, which had been diminishing gradually for several years, jumped last year to its highest level since 1960. This turnaround was reason for apprehension because it occurred at a time when currencies of some nations were being devalued.

The U.S. deficit last year, at \$3.6 billion, was more than double that in 1966. Without the substantial contribution of agriculture, it would have been \$4.6 billion and the actual or potential drain on our gold stock heightened.

Total agricultural exports in 1967 (balance of payments basis) accounted for \$6.4 billion—or 21 percent of total exports.

Of this amount, \$1.3 billion worth of commodities were financed by the Government with international grants and credits. Such exports (commonly called noncommercial) provide no bal-

ance of payments benefits for the year in which they occur.

However, there were some balance of payments returns derived from noncommercial exports of previous years (such as repayments of credits under Public Law 480), which amounted to over \$300 million last year.

On a commercial basis, agricultural exports and imports in 1967 amounted to \$5.1 billion and \$4.5 billion, respectively—giving a favorable balance of \$660 million. Adding the gain realized from the Government-sponsored shipments of former years, the net contribution by agriculture came close to \$1.0 billion. (32)

Rotterdam Is Turnstile to Europe For Variety of U.S. Farm Products

Most people think that ocean-going tankers carry petroleum—and they do.

But with the doubling of tanker capacities in recent years, these vessels are now widely used as carriers for bulk shipments of grains, soybeans, and other agricultural products.

Rotterdam is one of the most frequent ports of call. The reason?

Highly developed facilities,

capable of berthing the world's largest vessels, and proximity to European markets make Rotterdam a major transshipment center for U.S. farm products.

Europe looks to Rotterdam—at the mouth of the Rhine River—and to neighboring Netherlands' ports as receiving stations not only for U.S. goods, but products from around the globe.

Almost \$149 million worth of U.S. agricultural exports moved from the Netherlands to third countries in 1966, the last year for which final figures are available. This intransit trade made up about 28 percent of total U.S. farm exports to the country for that year.

By commodity, 60 percent of the soybeans shipped to the Netherlands, 47 percent of the oats, 39 percent of the barley, 30 percent of the corn and rye, 29 percent of the oil cake and meal, and 23 percent of the grain sorghums were passed along to other countries during 1966.

The major countries of destination for U.S. grains and oilseeds intransit through the Netherlands during this period were West Germany, the United Kingdom, Belgium-Luxembourg, France, Switzerland, Ireland, Denmark, and Sweden. (33)

Foreign Spotlight

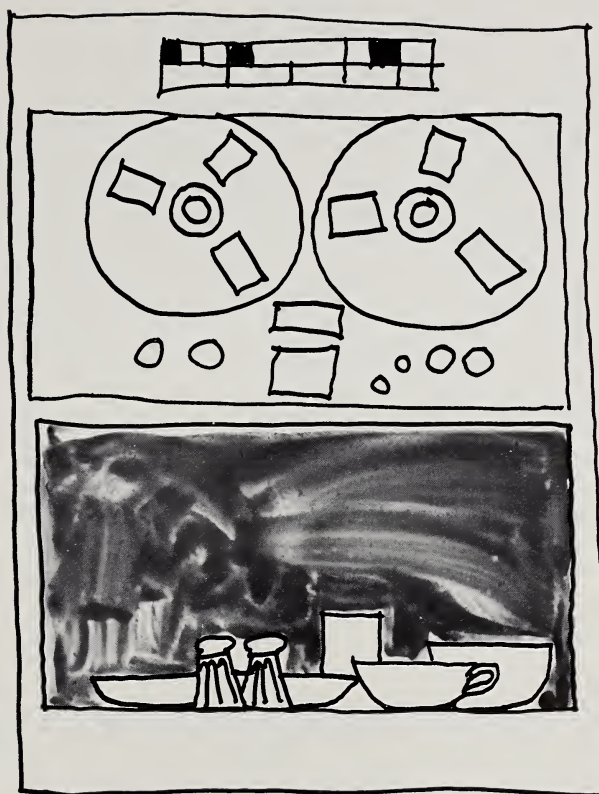
CANADA. Canadian farmers' cash farm receipts during 1967—at an estimated \$4,053 million—set a record, 3.4 percent above the previous high in 1966. The rise was attributed to increased Canadian wheat board payments, and to higher returns for tobacco, cattle, calves, and dairy products.

SWITZERLAND. Swiss imports of U.S. grain dropped from 273,000 metric tons in 1966 to about 100,000 tons in 1967. Meanwhile, the Swiss stepped up their imports of heavily subsidized French wheat and corn by around 115,000 tons in 1967.

AUSTRALIA. Citrus marketing organizations in Australia and Israel have agreed to try a 1-year scheme: During the summer off-season, Israel will market Australian oranges to Israel's traditional customers, mainly in EEC and EFTA. This will mean more competition for California and Arizona Valencias, which are marketed in European markets during the summer months.

USSR. Negotiations are expected to begin this month for a new 2-year agreement on U.S.—USSR exchanges. U.S. proposals call for delegations to study a wide variety of Soviet agricultural activities, ranging from crop estimating methodology to agricultural marketing. (34)

FOOD USE YARDSTICK



How do economists measure the amount of food that Americans eat, or at least "use up," in a given period? The mathematical effort is hard even with computer.

To most anybody, a steak dinner complete with baked potato and sour cream, tossed salad, green beans with almonds, strawberry shortcake, and coffee adds up to a satisfying meal.

But to an economist trying to determine the U.S. Food Consumption Per Capita Index, combining these food items is an aggravation in the computer.

There is no known simple way to total such diverse items equitably.

If you do it by weight you must first decide what kind of weight. Weight of the raw food at the

farm? Weight in the package? Weight as prepared on the table? And what about wasted food left on the plate? Is that considered consumed, too?

If you decide to tot up the various food items by cost you run into similar problems. What cost? Cost at the farm? Processed cost? Packaged cost? Cost as served on the table?

Adding the nutritional or caloric values of foods is another possibility. But here again there appears to be no satisfactory way of combining all nutritive values into a single index.

The way the Economic Research Service handles the problem is this: It measures the quantity of foods civilians consumed per capita in retail weights. Then it adds together various foods by using average retail prices

during a specified period as index weights.

Thus, it combines elements of both weight and cost measuring systems.

Usually ERS measures a commodity at the "primary" stage of distribution in the marketing system. That is, after it is initially processed but before it loses its individual identity by being mixed with other foods.

Flour, for example, is measured before it goes into bread and other bakery goods rather than after.

Fresh fruits are measured in farm weights but processed fruits in canner or packer weights.

Other commodities like meat and poultry are measured after processing to eliminate nonfood byproducts.

Products marketed as ingredients in processed or mixed foods—such as sugar, flour, and vegetable oils—are measured before final processing to avoid counting them twice.

The final tabulations are subject to many limitations, however.

They are national averages for the entire civilian population. And as such, no variations in food likes and dislikes show up. The effects of age, sex, ethnic background, religion, race, urbanization, region, family size, or income level are not individually discernible in the food consumption index.

The retail weight concept used in the tabulations treats all

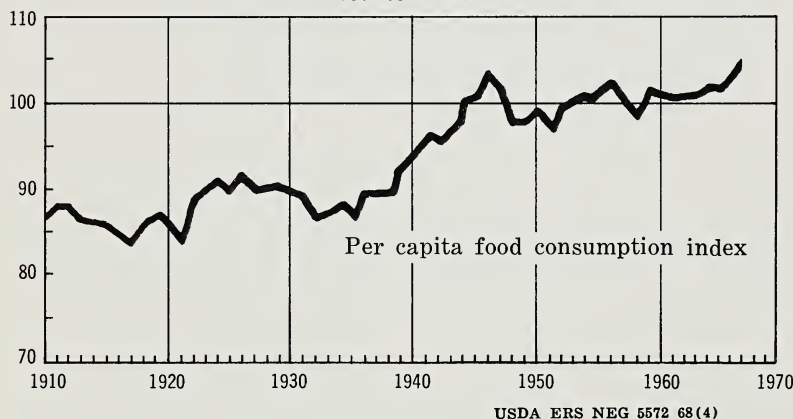
food as though it were sold in the retail store.

Much food, however, is used by the family on the farm where it was produced or is sold through wholesale channels to restaurants, hotels, other away-from-home eating places, and to schools, camps, hospitals, and other institutions.

In addition, no measure in the index is made of loss of food after it is sold at retail. Spoilage, inedible waste, cooking losses, unused leftovers and food used for pets shows up as ordinary consumption in the statistics.

When ERS estimates the nutritive values of the food consumed per capita, inedible waste is excluded from the figures, however. (24)

THE UPS AND DOWNS OF FOOD USE
1957-59 = 100



Diet-Conscious American Still Takes Big Helping of Food Fats and Oils

Getting fat? Yes, indeed to the amount of 48.7 pounds.

That was the average U.S. civilian helping of food fats and oils in 1967 (including the fat content of butter and margarine). Nationwide, this added up to 9.5 billion pounds.

Per capita consumption last

year was up only an ounce or so from the previous record rate of 1966, and there were no marked shifts in product use.

During the past 20 years, however, consumption of fats and oils has steadily edged up with a 6.7-pound per person increase in the period. Sharp rises in use of margarine, shortening, and cooking and salad oils have more than offset longrun declines of about 50 percent in direct consumption of lard and butter. (35)

Retail Food Prices: A High Price In June May Shift to Low in January

A bargain hunter? Then you'll plan to buy all your fish in June, all your fresh fruits and vegetables in April, and all your beef and veal in January.

Those are the months when retail prices on those foods can be expected to be the lowest, according to indices of seasonal price variation compiled by the Bureau of Labor Statistics.

In recent years, however, food prices have not varied quite as much from one season to another as they used to.

The range of retail price variation has narrowed. The difference between the highest retail price and the lowest retail price of all foods during the year declined from 1.6 percent in 1956 to 1.3 percent in 1966.

The reason? A leveling to some extent of the seasonal price peaks and valleys on chicken, dairy products, eggs, onions, tomatoes, apples, oranges, bananas, and grapefruit.

Shifts in production methods have helped smooth out seasonal ups-and-downs in prices of some products.

In broiler production, for example, large commercial units have stabilized the flow of chickens. Mass production has also reduced the amount of price fluctuation for eggs and dairy products since 1956.

But for a few foods—notably potatoes—there was a widening of the price gap between seasonal highs and seasonal lows. And many others showed little change in price patterns.

Pork prices have varied widely from season to season in the past decade and they still vary widely. But the retail price peak in recent years has come later—about September rather than in July.

The pattern for beef and veal is much the same as for pork—with the retail price peak shift-

ing into the fourth quarter of the year and the low point into the second quarter. But beef and veal price variations are not nearly so large as those for pork.

These shifts on the calendar in price fluctuations for meat have been important enough to affect total food prices. In the mid-1950's, second-quarter food prices averaged above those in the first quarter. June, in particular, was a strong month.

But by 1966 second-quarter prices averaged about the same as those in the first and fourth quarters and third-quarter prices were highest by about 1 percent.

July has remained the peak price month for all food items combined. But June prices no longer move up as much from May as previously. And the decline from July to August is no longer as sharp as it once was in previous years. (25)

National Survey To Measure Effect Of USDA's School Lunch Programs

The month of April 1968 was a special one for children who participated in school lunch programs all over the country.

But the chances are they weren't aware of it.

April was the month when the Economic Research Service made a comprehensive survey of school food services.

The Consumer and Marketing Service sponsored the survey in connection with its administration of the School Lunch Program.

The purpose? To find out what types of food services are offered by schools, how much is paid for it, who foots the bill, how many needy children receive free or low-cost food, and similar information.

Also to be determined is the

extent to which schools do not have food service and the degree of need for it in those schools.

Half of the public and private schools in the survey were asked questions primarily about their school lunch programs. The questions directed to the other half centered on the schools' milk and breakfast programs and their food preparation facilities.

The study is the third Department of Agriculture survey of the School Lunch Program and the first on a national level since 1962. Sampling procedures and tabulation plans are similar to previous surveys so that results will be comparable.

As with the 1962 study, questionnaires were sent out by the Bureau of the Census for the Department and returned by mail. To assure a maximum response, State directors of school lunch programs cooperated by urging all schools in their jurisdictions to participate. (26)

WHAT DOES FOOD COST? Last year each American spent about: (a) 15 cents, measure how much of our income goes for food. It all depends on the (b) 18 cents, or (c) 20 cents of every dollar on food. Which is right? starting point. Three of the most commonly used measures are shown Each of the above figures is correct because there are many ways to in the illustration below. (27)

~~22.7%~~
19.6%

Share of consumer expenditures per person spent for food in 1967. Consumer expenditures are our day-to-day living costs. In 1957 we spent 22.7 per cent on food.

~~18.2%~~
15.4%

Share of total income per person spent for food in 1967. Total income is income before taxes. By comparison, in 1957 we spent 18.2 per cent on food.

~~20.7%~~
17.7%

Share of disposable income per person spent for food in 1967 is our take-home pay, after taxes. In 1957 we spent 20.7 per cent on food.

AN ANALYSIS OF DOMESTIC AND FOREIGN DEMAND FOR U.S. SOYBEANS AND SOYBEAN PRODUCTS. J. P. Houck and J. S. Mann, Minnesota Agricultural Experiment Station in cooperation with the Economic and Statistical Analysis Division and Foreign Regional Analysis Division Minn. Agr. Expt. Sta. Tech. Bul. 256.

The main focus of this study is on the relevant demand, price, and market adjustment relationships for U.S. soybeans, soybean oil, and soybean meal at home and in major dollar markets abroad.

AGRICULTURE IN THE EUROPEAN ECONOMIC COMMUNITY: ANNOTATED BIBLIOGRAPHY, 1958-66. B. D. Hedges and R. E. Friend, Foreign Regional Analysis Division. ERS-For. 213.

Over 300 publications about EEC agriculture are listed and summarized.

A COMPARISON OF DRYLOT AND SUPPLEMENTED PASTURE SYSTEMS FOR FINISHING BEEF CATTLE. R. L. Edwards and others, South Carolina Agricultural Experiment Station in cooperation with Economic Research Service. S. C. Agr. Expt. Sta. Bul. 537.

Cattle fed pelleted Coastal Bermudagrass hay in drylot made faster gains than animals receiving the same type hay in long form, and the fastest gains of all treatments tested.



RECENT PUBLICATIONS

The publications listed here are issued by the Economic Research Service and cooperatively by the state universities and colleges. Unless otherwise noted, reports listed here and under Sources are published by ERS. Single copies are available free from The Farm Index, OMS, U.S. Department of Agriculture, Washington, D.C. 20250. State publications (descriptions below include name of experiment station or university after title) may be obtained only by writing to the issuing agencies of the respective states.

TAIWAN'S AGRICULTURAL DEVELOPMENT: ITS RELEVANCE FOR DEVELOPING COUNTRIES TODAY. R. P. Christensen, Foreign Development and Trade Division. FAER-39.

Despite its rapid population growth and limited land and capital resources, Taiwan has upped national income 7.6 percent a year since the early 1950's.

ACCELERATING INDIA'S FOOD GRAIN PRODUCTION 1967-68 to 1970-71. W. E. Hendrix, Foreign Development and Trade Division, J. J. Naive, Foreign Regional Analysis Division, and W. E. Adams, AID Mission to India. FAER-40.

The report deals with the potentials and requirements for increasing India's food grain production by 5 percent per year from 1967-68 to 1970. It reviews Indian agriculture since 1949 and policies bearing on growth requirements.

CORN GROWING PRACTICES, 1965. H. V. Smith, Farm Production Economics Division, and C. O. Doescher, Statistical Reporting Service. Stat. Bul. 418.

Differences among the 48 States in soil preparation, planting methods, tillage and planting, frequency of cultivation, and pesticide use are covered in text and tables.

THE EVALUATION OF INVESTMENT OPPORTUNITIES—TOOLS FOR DECISION MAKING IN FARMING AND OTHER BUSINESSES. A. J. Walrath, Economic Development Division, and W. L. Gibson, Virginia Polytechnic Institute. Agr. Handbook-349.

A dollar to be received sometime in the future will not have today's value. The report gives formulas and factors for wise buying, selling, and investing.

Numbers in parentheses at end of stories refer to sources listed below:

1. J. T. Larsen and R. L. Rizek, "The Cost of Feeding to Heavier Weights," Livestock and Meat Situation, LMS-159 (P); 2. B. B. Johnson (M); 3. R. L. Rizek (SM); 4. Farm Income Situation, FIS-207; 5. J. E. Lee, Jr., Changes in Farming and Emerging Capital Needs of Farmers (S); 6. Feed Situation, F&S-222 (P); 7. E. L. Michelson, Projecting Apple Yields by Variety and Tree Density (M*); 8. G. P. Owens, Outdoor Recreation—Participation, Characteristics of Users, Distance Traveled and Expenditures (M*); 9. W. K. Bryant and A. E. Hammill (SM); 10. H. Johnson (SM); 11. H. H. Ellis, Legal Aspects of Rural-Urban Water Use Conflicts (M); 12. M. J. Jordan, People in Changing Rural America—What Is Ahead? (S); 13. D. Brewer and G. A. Gillespie (SM); 14. C. Vosloh, Costs and Economics of Scale in Feed Manufacturing, MRR-815 (P); 15. and 17. The Food Service Industry: Its Structure and Characteristics, 1966, Stat. Bul. No. 416. (P); 16. National Food Situation, NFS-123 (P); 18. R. Hertford, Principal Historical and Economic Issues in Mexican Agricultural Development, (M) and, "The Development of Mexican Agriculture: A Skeleton Specification," (S); 19. Foreign Regional Analysis Division (SM); 20. J. R. Corley (SM); 21. J. R.

Corley, "U. S. Agricultural Exports to the European Economic Community: 1962-67," For. Agr. Trade, April 1968 (P); 22. Foreign Regional Analysis Division (SM); 23. B. D. Hedges and R. E. Friend, Agriculture in the European Economic Community: An Annotated Bibliography, 1958-66, ERS-For. 213 (P); 24. and 25. S. J. Hiemstra, Consumption, Prices, and Expenditures for Food (M); 26. E. D. White, Survey of Food Service in Public and Private Schools (SM); 27. R. C. Lifquist (SM); 28. A. W. True (SM); 29. Fats and Oils Situation, FOS-242 (P); 30. D. S. Kuryloski (SM); 31. Foreign Development and Trade Division (SM); 32. G. R. Krueger, Agriculture and The U.S. Balance of Payments, 1960-67 (M); 33. T. A. Warden, "Transshipment of U.S. Agricultural Products Through The Netherlands," For. Agr. Trade, May 1968 (P); 34. Foreign Regional Analysis Division (SM); 35. Fats and Oils Situation, FOS-242 (P).

Speech (S); published report (P); unpublished manuscript (M); special material (SM); * State publications may be obtained only by writing to the experiment station or university cited.

ECONOMIC TRENDS

| ITEM | UNIT OR BASE PERIOD | '57-'59 AVERAGE | 1967 | | 1968 | | |
|---|------------------------|--------------------|--------------------|--------|--------------------|--------------------|--------|
| | | | YEAR | MARCH | JANUARY | FEBRUARY | MARCH |
| Prices: | | | | | | | |
| Prices received by farmers | 1910-14=100 | 242 | 252 | 250 | 255 | 258 | 259 |
| Crops | 1910-14=100 | 223 | 224 | 224 | 232 | 229 | 231 |
| Livestock and products | 1910-14=100 | 258 | 276 | 272 | 274 | 282 | 283 |
| Prices paid, interest, taxes and wage rates | 1910-14=100 | 293 | 342 | 339 | 346 | 348 | 350 |
| Family living items | 1910-14=100 | 286 | 322 | 319 | 327 | 329 | 330 |
| Production items | 1910-14=100 | 262 | 288 | 287 | 288 | 290 | 292 |
| Parity ratio | | 83 | 74 | 74 | 74 | 74 | 74 |
| Wholesale prices, all commodities | 1957-59=100 | ... | 106.1 | 105.7 | 107.2 | 108.0 | 108.3 |
| Industrial commodities | 1957-59=100 | ... | 106.3 | 106.0 | 107.8 | 108.3 | 108.6 |
| Farm products | 1957-59=100 | ... | 99.7 | 99.6 | 99.0 | 101.3 | 102.2 |
| Processed foods and feeds | 1957-59=100 | ... | 111.7 | 110.6 | 112.4 | 113.3 | 113.1 |
| Consumer price index, all items | 1957-59=100 | ... | 116.3 | 115.0 | 118.6 | 119.0 | ... |
| Food | 1957-59=100 | ... | 115.2 | 114.2 | 117.0 | 117.4 | ... |
| Farm Food Market Basket: ¹ | | | | | | | |
| Retail cost | Dollars | 983 | 1,081 | 1,069 | 1,098 | 1,100 | ... |
| Farm value | Dollars | 388 | 413 | 411 | 417 | 424 | ... |
| Farm-retail spread | Dollars | 595 | 668 | 658 | 681 | 676 | ... |
| Farmers' share of retail cost | Percent | 39 | 38 | 38 | 38 | 39 | ... |
| Farm Income: | | | | | | | |
| Volume of farm marketings | 1957-59=100 | ... | 124 | 100 | 135 | 95 | 98 |
| Cash receipts from farm marketings | Million dollars | 32,247 | 42,471 | 2,927 | 3,720 | 2,830 | 3,000 |
| Crops | Million dollars | 13,766 | 18,310 | 942 | 1,661 | 896 | 900 |
| Livestock and products | Million dollars | 18,481 | 24,161 | 1,985 | 2,059 | 1,935 | 2,100 |
| Realized gross income ² | Billion dollars | ... | 48.9 | 49.3 | ... | ... | 49.7 |
| Farm production expenses ² | Billion dollars | ... | 34.4 | 34.3 | ... | ... | 34.9 |
| Realized net income ² | Billion dollars | ... | 14.5 | 15.0 | ... | ... | 14.8 |
| Agricultural Trade: | | | | | | | |
| Agricultural exports | Million dollars | 4,105 | ³ 6,383 | 552 | 546 | 547 | ... |
| Agricultural imports | Million dollars | 3,977 | ³ 4,454 | 413 | 415 | 402 | ... |
| Land Values: | | | | | | | |
| Average value per acre | 1957-59=100 | ... | ⁴ 166 | 160 | ⁴ 166 | ⁴ 166 | ... |
| Total value of farm real estate | Billion dollars | ... | ⁴ 188.8 | 182.5 | ⁴ 188.8 | ⁴ 188.8 | ... |
| Gross National Product: ² | | | | | | | |
| Consumption ² | Billion dollars | 457.4 | 785.0 | 766.3 | ... | ... | 827.3 |
| Investment ² | Billion dollars | 294.2 | 491.7 | 480.2 | ... | ... | 517.8 |
| Government expenditures ² | Billion dollars | 68.0 | 112.1 | 110.4 | ... | ... | 119.4 |
| Net exports ² | Billion dollars | 92.4 | 176.3 | 170.4 | ... | ... | 187.5 |
| | Billion dollars | 2.7 | 4.8 | 5.3 | ... | ... | 2.6 |
| Income and Spending: ⁵ | | | | | | | |
| Personal income, annual rate | Billion dollars | 365.3 | 626.4 | 615.6 | 650.9 | 659.3 | 666.0 |
| Total retail sales, monthly rate | Million dollars | 17,098 | 26,125 | 25,739 | 27,065 | 27,482 | 28,009 |
| Retail sales of food group, monthly rate | Million dollars | 4,160 | 6,011 | 6,041 | 6,249 | 6,191 | ... |
| Employment and Wages: ⁵ | | | | | | | |
| Total civilian employment | Millions | 63.9 | 74.4 | 73.8 | 75.2 | 75.7 | 75.8 |
| Agricultural | Millions | 5.7 | 3.8 | 3.9 | 4.0 | 4.1 | 4.0 |
| Rate of unemployment | Percent | 5.8 | 3.8 | 3.7 | 3.5 | 3.7 | 3.6 |
| Workweek in manufacturing | Hours | 39.8 | 40.6 | 40.4 | 40.2 | 40.7 | 40.7 |
| Hourly earnings in manufacturing, unadjusted | Dollars | 2.12 | 2.83 | 2.79 | 2.94 | 2.95 | 2.96 |
| Industrial Production: ⁵ | 1957-59=100 | ... | 158 | 156 | 161 | 162 | 162 |
| Manufacturers' Shipments and Inventories: ⁵ | | | | | | | |
| Total shipments, monthly rate | Million dollars | 28,745 | 44,912 | 44,663 | 48,133 | 47,479 | ... |
| Total inventories, book value end of month | Million dollars | 51,549 | 82,425 | 79,430 | 82,571 | 82,862 | ... |
| Total new orders, monthly rate | Million dollars | 28,365 | 45,166 | 43,516 | 47,628 | 47,714 | ... |

¹ Average annual quantities of farm food products purchased by urban wage-earner and clerical-worker households (including those of single workers living alone) in 1959-61—estimated monthly. ² Annual rates seasonally adjusted first quarter. ³ Preliminary. ⁴ As of November 1, 1967. ⁵ Seasonally adjusted.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Advance Retail Sales Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale Price Index).

To stop mailing ☐ or to change your
address ☐ send this sheet with new
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Department of Agriculture, Rm. 1459,
Washington, D.C. 20250.

The Retrievers

How does the average agricultural economist find information needed for research and keep up with new publications in his field?

Almost all of nearly 400 economists who were asked this question in a recent survey said that "conversation at work" was their best source of such information.

Other sources included information from workshops, correspondence with colleagues, agricultural experiment station bulletins, the *Journal of Farm Economics*, and *Bibliography of Agriculture*. Many rarely turn to other available sources.

Of 7,264 agricultural economics publications issued between 1961 and 1963 only about 45 percent were indexed in major bibliographical services, including the *Bibliography of Agriculture*.

A large proportion of material on agricultural economics never comes to the attention of these services because of limited publication or the obscurity of the publisher.

In contrast to agricultural economics publications in general, over 50 percent of the research and professional journals, research monographs, trade books, and statistical reports surveyed were indexed by one or more services. These services include—in addition to those mentioned above—*Agricultural Index*, *Journal of Economic Abstracts*, *Business Periodicals Index*, and the *International Bibliography of Economics*. (28)

THE FARM INDEX

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